

ABSTRACT

OPTICAL CATHETER CONNECTOR

An optical catheter connection system is described which has two mating assemblies: a motor unit and an optical catheter connector. The optical catheter connector mates to the motor unit for coupling optical signal into and out of a catheter optical fiber and providing drive torque to the catheter optical fiber. The motor unit includes a rotary shaft powered by a motor for providing drive torque to the catheter optical fiber to rotate the fiber. The motor unit further includes a split sleeve for aligning a motor optical fiber with the catheter optical fiber for coupling optical signals between the two fibers. In one embodiment, a shield is provided around the outer surface of the optical catheter connector to help maintain a sterile field by forming a barrier between a clinician's sterile hand, which holds the optical catheter connector, and the non-sterile motor unit.